Jane Elizabeth TATESON
Serial No. 10/585,890
July 13, 2009

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning a page 2, line 15 as follows:

International patent applications ~~WO~~PCT/GB2004/001999 (published as WO

2005/006668) and ~~WO~~PCT/GB2004/003510 (published as WO 2005/025147) discuss

this work. The first of these discloses a system of mobile data wireless relay devices,

each having

Please amend the paragraph beginning a page 2, line 15 as follows:

In the simulation, a source of pollution is generating a gradient of pollution

measurement with a circular shape. The focus of the simulation is to determine how

well this circular area of pollution can be characterized by data collected by the network

in a finite time, with finite resources of buffer memory and battery energy. During such

an experiment, a minority of the sensor devices will use up all their battery energy and

become useless in terms of taking measurements and relaying data. The 'perfect'

result that a network could achieve is reporting data on 100% of the area in which there

is pollution. The success of the data gathering does not refer to the quantity of data

packets arriving at the sinks/base-stations, but on the proportion of the area of polluted

water for which data has been received. Results quoted are each averages of ten

simulations, for which the size and position of the pollution area varies, as do the

positions of the fixed sinks/base-stations, and the motions of the forty-eight mobile

sensor devices. Initially two routing protocols were used, one (represented in the

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results 41, 43) corresponds to the routing protocol discussed in the patent application

GB0321096.0 (from which PCT/GB2004/003510 [published as WO 2005/025147]

claims priority), and the other routing protocol (results 42, 44) is a variant of it. Each

routing protocol is used with a constant sensing rate (41, 42) and a responsive sensing

rate according to the exemplary embodiment (43, 44). As explained above, the

measure of success is the proportion of polluted water area that is characterized by the

end of the data-gathering experiment, which is given as a fraction on the left hand axis,

with 0.95 meaning 95%. The results are tabulated below, and represented graphically

in Figure 4.